

Genetics Practice Problems #2 - Writing Alleles

Directions: Using the data in Table 1, write the genotype that corresponds to the phenotype descriptions

Table 1: Mendel's Traits and Symbols for Pea Plants

Traits	Dominant Allele	Symbol	Recessive Allele	Symbol
Seed Shape	Round	R	Wrinkled	r
Seed Color	Yellow	Y	Green	y
Seed Coat Color	Colored	C	White	c
Pod Shape	Smooth	S	Constricted	s
Pod Color	Green	G	Yellow	g
Stem Height	Tall	T	Short	t
Flower Position	Axial	A	Terminal	a

Phenotype	Genotype		Phenotype	Genotype
1. Heterozygous for height			16.	ss
2. Homozygous dominant for seed shape			17.	tt
3. Heterozygous colored seed coat			18.	Gg
4. Homozygous green pod			19.	Aa
5. Homozygous short			20.	rr
6. Homozygous tall			21.	Tt
7. Homozygous axial			22.	RR
8. Homozygous terminal			23.	gg
9. Heterozygous flower position			24.	Ss
10. Heterozygous seed color			25.	SS
11. Homozygous smooth pod			26.	Yy
12. Homozygous constricted pod			27.	cc
13. Homozygous recessive for seed coat color			28.	rr
14. Heterozygous for pod color			29.	CC
15. Homozygous round seed			30.	Aa